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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,456	01/27/2004	Steven T. Fink	247394US6 YA	8693

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EXAMINER	
XU, LING X	
ART UNIT	**PAPER NUMBER**
1775	

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/764,456	FINK, STEVEN T.	
	Examiner	Art Unit	
	Ling X. Xu	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) *20-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/3/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-19 in the reply filed on 10/14/2005 is acknowledged. The traversal is on the ground(s) that a search and examination of the entire application would not place a serious burden on the Examiner. This is not found persuasive because, as stated in the prior Office action, Group I and II are related as product and process of use. A search of the product claimed may overlap the method claims. However, a search of the product claims does not include all the areas required for the method claims. Therefore, additional search is required. A serious burden does exist. In addition, as also stated in the prior Office action, the product claims and the method claims are classified in two different classes. The product is classified in Class 428, which includes stock materials and miscellaneous articles. The method is classified in Class 427, which includes coating process. Class 428 and Class 427 include very different subject matters and are examined by different groups of examiners with different expertise. Therefore, in order to ensure the prosecution quality, the product claims and method claim should be searched and examined separately by examiners with different expertise.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,7-8 and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Wong et al (US 5,593,541).

With respect to claim 1, Wong discloses a metal structure such as a fastener comprising an enlarged head, a mating section and a plasma resistant coating (col. 3, lines 45-60, col. 4, lines 1-30 and FIG. 3).

With respect to claims 7-8, Wong discloses that the enlarged head comprising a recess, which is an elongate female recess (see FIG. 3).

It is noted that claim 16 is a product-by-process claim. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps (MPEP 2113). "[E]ven though product – by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966.

With respect to claim 17, since the enlarged head is coated with plasma resistant coating, the enlarged head is resistant to plasma etching.

With respect to claims 18-19, Wong discloses that a more uniform coating can be obtained depends on the complexity of the geometry of the component to be coated (col. 5, lines 10-20). Accordingly, Wong discloses that the thickness of the coating may be uniform or may be variable on the surface of the fastener depends on the geometry of the fastener to be coated.

The claims do not defined which surface is the first specified surface, accordingly, any surface would meet the limitation of "a first specified surface."

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 and 16-17 are rejected under 35 U.S.C. 102(a) as being anticipated by Takebayashi (JP-2002110547).

Takebayashi discloses a bolt comprising an enlarged head, a mating section and a plasma resistant coating made of aluminum and ceramics with plasma resistance (embodyment [0021] and figures).

It is noted that claim 16 is a product-by-process claim. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps (MPEP 2113). "[E]ven though product – by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966.

With respect to claim 17, since the enlarged head is coated with plasma resistant coating, the enlarged head is resistant to plasma etching.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong, as applied to claim 1 above, and further in view of Tsukatani et al. (US 6,576,354).

As stated above, Wong discloses the same fastener as recited in claim 1

Wong does not disclose the coating composition as recited in claims 2-6.

Tsukatani teaches the thermal spray coating consists of oxide of rare earth element and another element such as aluminum. The rare earth element includes oxides of yttrium, cerium, dysprosium and Europium (col. 4, lines 10-25). The coating has very desirable properties of high heat resistance, abrasion resistant and corrosion resistance as well as in respect of uniformity of the coating layer and adhesion of the coating layer to the substrate surface (col. 3,lines 45-67).

Therefore, it would have been obvious to one of ordinary skill in the art to use the coating taught by Tsukatani on Wong's fastener in order to obtain coating with high heat resistance, abrasion resistant and corrosion resistance as well as in respect of uniformity of the coating layer and adhesion of the coating layer to the substrate surface.

5. Claims 2-6 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takebayashi, as applied to claim 1 above, and further in view of Tsukatani et al. (US 6,576,354).

As stated above, Takebayashi discloses the same fastener as recited in claim 1

Takebayashi does not disclose the coating composition as recited in claims 2-6.

Tsukatani teaches the thermal spray coating consists of oxide of rare earth element and another element such as aluminum. The rare earth element includes oxides of yttrium, cerium, dysprosium and Europium (col. 4, lines 10-25). The coating has very desirable properties of high heat resistance, abrasion resistant and corrosion resistance as well as in respect of uniformity of the coating layer and adhesion of the coating layer to the substrate surface (col. 3,lines 45-67).

Therefore, it would have been obvious to one of ordinary skill in the art to use the coating taught by Tsukatani on Takebayashi's fastener in order to obtain coating with high heat resistance, abrasion resistant and corrosion resistance as well as in respect of uniformity of the coating layer and adhesion of the coating layer to the substrate surface.

With respect to claims 18-19, since the thickness of the coating can be uniform or variable, which indicates that the thickness of the coating is not critical. The claims do not defined which surface is the first specified surface, accordingly, any surface would meet the limitation of "a first specified surface."

Accordingly, it would have been obvious to one of ordinary skill in the art to apply coating with uniform or variable thickness on the fastener. One skilled in the art would have been able to determine the thickness of the coating of being uniform or variable based on the requirement of the applications of the fastener.

6. Claims 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong as applied to claims 1 and 7 above, and further in view of the same reference.

As stated above, Wong discloses the same fastener as recited in claims 1 and 7.

Wong does not disclose the various shapes of the enlarged head of the fastener as recited in claims 9-15. However, the shape of the bolt is a matter of a choice depending on the requirement of the applications of the fastener, which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed was significant, *see* MPEP 2144.04.

Therefore, it would have been obvious to one of ordinary skill in the art to make and use the fastener disclosed by Wong in various shapes depends on the requirement of various applications of the fastener.

7. Claims 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takebayashi (JP-2002110547), as applied to claims 1 and 7 above, and further in view of the same reference.

As stated above, Takebayashi discloses the same fastener as recited in claim 1.

Takebayashi does not disclose the various shapes of the bolt as recited in claims 7-15 and 18-19. However, the shape of the bolt is a matter of a choice depending on the requirement of the applications of the fastener, which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed was significant, *see* MPEP 2144.04.

Therefore, it would have been obvious to one of ordinary skill in the art to make and use the fastener disclosed by Takebayashi in various shapes depends on the requirement of various applications of the fastener.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling X. Xu whose telephone number is 571-272-1546. The examiner can normally be reached on 8:00 - 4:30 Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah D. Jones can be reached on 571-272-1535. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ling X. Xu
Primary Examiner
Art Unit 1775

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